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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,658	07/28/2000	Fabian W. Meier	1452.3080000	3246
22801	7590	08/26/2004	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			BOCCIO, VINCENT F	
			ART UNIT	PAPER NUMBER
			2616	6

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/628,658

Applicant(s)

MEIER ET AL.

Examiner

Vincent F. Boccio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2616.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless --
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
2. Claims 8-10, 12, 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Castelli et al. (US 6,021,224).

Regarding claims 8 and 12, Castelli discloses and meets the limitation of having a machine readable medium or a storage media having stored thereon a progressive loss-less format that facilitates selective data presentation with either lossy or loss-less quality (Fig. 7 B, from encoders Fig. 7 A, loss-less encoder 722 & loss-ily encoder 711, col. 7-8, col. 8, lines 57-60).

Regarding claims 9-10, Castelli further meets the limitation of wherein the primary can be variable and fixed length encoded, therefore, variable length token vectors (representing data amplitudes of the data), or further suggests a combination of variable and fixed, based on one that compresses the most (cols. 7-8).

Regarding claims 18-19, Castelli meets the limitations associated with the steps:

- determining a desired quality level (col. 8, lines 44-, "searchable database", loss-ily and loss-less-ly data is searched and retrieved);

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- upon the selection of loss-less, retrieving the primary and supplementary portions (col. 8, lines 57-60, "loss-ily retrieved ... loss-less-ly residual would also be retrieved and used to obtain the residual, if desired"),

wherein upon reception the data is then decoded and presenting the decoded data, are met by Castelli.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 11, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castelli et al. (US 6,021,224) in view of Watanabe (US 6,430,354).

Regarding claims 1 and 13, Castelli discloses and meets the limitations associated with a method of recording data onto a storage medium, comprising:

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- receiving a primary bit stream of fixed length (from encoder 722, col. 8, lines 24-44, loss less coder fixed rate to fixed rate);
- a supplemental bit stream of variable length from a codec (col. 7, "quantized subbands a fixed to fixed coder", reference Fig. 7 A, quantized 708, sub-bands 709 of encoder 711), and;
- storing the streams generated by the encoders to a storage medium (Fig. 7 B, lossily compressed sub-bands and compression residual streams to storage allocator to storage system),
- to be later retrieved from storage/medium 736, thru a search unit 738, to a retriever 740, as shown in Fig. 7 C.

Castelli fails to particularly disclose the function of the allocator, if any temp storage is provided, and further fails to show or describe the data structure of the recorded medium, therefore, fails to disclose multiplexing and providing headers data, and/or temp storage and further of the processing is done in real time or not, but also fails to limit the scope in any way.

Watanabe teaches in Fig. 3, a codec (10-1, 10-2, 10-3), which processes an input stream (Fig. 4), material Data 12, creating different resolution streams and buffering to create the multiplexed plural streams with headers (Fig. 1, headers "1, 2a, 3a, 4a") as shown in Fig. 1, as taught by Watanabe.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Castelli by incorporating buffering to the allocator and to create a multiplexed data structure with headers between the multiplexed data to identify the data streams, as taught by Watanabe thereby the read out from the work file in an order from the lowest to the highest in a time series received on the receiving side (col. 2), thereby allowing reproduction the selected coded data at the arbitrary level (set level) from the start to the end, as desired in view

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of the time series presentation of the multiple levels, being multiplexed.

Further to address the language plurality of primary and plurality of supplementary, is interpreted in view applicant's specification and met by the combination as applied in view of multiplexing, each multiplexed section (Watanabe, Fig. 1) is repeated, wherein each section in view of Castelli, being a period of data, with respect to each encoder, therefore, over time, there is created plural streams of primary stream and plural from the supplemental stream are created and recorded creating a multiplexed data structure of multiple stream of different encoding methods.

Regarding claim 2, the combination as applied fails to address issues of recording in a real time manner the primary streams wherein the supplementary are recorded in a non-real time manner.

The examiner takes official notice that encoding in real time is well known, wherein while encoding data in non-real time the encoding can be more labor intensive, higher quality compression such as a loss-less process of encoding, is more advantageous to be a non-real time process, such as the encoding output from encoder 722 of Castelli, which uses a preprocessed signal at 708, to perform multiple additional steps, therefore, it would have been obvious to one skilled in the art, that the loss-less processing can be done in a non-real time manner, but allowing the primary stream which requires less processing to be encoded and recorded in a real time manner for period, allowing for non-real time encoding and recording of the supplemental stream thereafter, performing the process over and over to create the multiplexed stream as taught by Watanabe, wherein multiplexing of plural streams thereby creating a data structure, is well known and obvious to those skilled in the art.

Regarding claims 3-4, Castelli discloses according to col. 7, lines 9-25 and col. 8, lines 8, lines 23-, that the encoders can perform either fixed to fixed or fixed to variable, therefore obvious if not met that one can be set for fixed and the other set for variable, and wherein the

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streams are generated from image data (col. 4; "image data").

Regarding claims 5-7 and 14-15, Castelli mentions col. 8, "plurality of ... e.g. magnetic disks", but, as applied the combination as applied fails particularly disclose,

- the streams are generated from High Definition data, claim 5;
- the medium being a high definition tape;
- a hard disk, even a hard disk array, claims 6-7, 14-15.

The examiner takes official notice that the intended use of using HD images, either utilization of a hard disk or hard disk arrays, high definition tape, all well known, therefore, it would have been obvious to those skilled in the art at the time of the invention to utilize HD images, to utilize a storage device, such as a Hard Disk or high definition tape in view of HD images, as is considered to be an obvious design choice to select the type of images to process, to utilize off the shelf well known storage such as the Hard disk or HD tape, being viable commercially available types of storage and signal type, as is obvious to those skilled in the art.

Regarding claim 11, Castelli fails to disclose much details associated with transferring to a temporary memory location prior to the step of decoding.

The examiner takes official notice that it is well known to perform a step of storage prior to decoding on the receiving side, especially in this environment wherein a residual would be processed with a primary signal, wherein the residual would be processed after the primary is received and possible rendered (primary can be rendered alone), wherein it is considered to be obvious to provide buffering to received data prior to processing, therefore considered obvious to store prior to decoding and further to store the residual and process with the stored primary, as is obvious in view of Castelli in view of decoding a primary and adding residual stream, as is obvious to those skilled in the art.

Claims 16-17 are analyzed and discussed with respect to the claims above.

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Contact Fax Information

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:
(703) 872-9314, (for formal communication
intended for entry)
or:
(703) 308-5359, (for informal or draft
communications, please label "PROPOSED" or
"DRAFT")

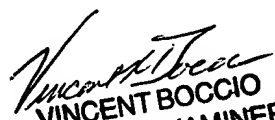
Hand-delivered responses should be brought to
Crystal Park II, 2121 Crystal Drive, Arlington,
VA., Sixth Floor (Receptionist).

Contact Information

1. Any inquiry concerning this communication or earlier
communications should be directed to the examiner of
record, Monday-Thursday, 8:00 AM to 5:00 PM Vincent F.
Boccio (703) 306-3022.

Any inquiry of a general nature or relating to the
status of this application should be directed to
Customer Service (703) 306-0377.

Primary Examiner, Boccio, Vincent
8/17/04


VINCENT BOCCIO
PRIMARY EXAMINER